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ABSTRACT

The relationship between a standard measure of self-concept and withdrawal from college was studied with students at private New York colleges who were admitted through the Higher Education Opportunity Programs (HEOP). HEOP students are educationally and financially disadvantaged. The objective of the study was to promote policy formation and action. HEOP students enrolled for the first time in 1977 were studied longitudinally. No significant relationships were found between academic persistence and self concept, as measured by the Tennessee Self-Concept Scale. A strategy for management of supportive services was explored in terms of possible restructuring, redistribution, and reallocation of resources and services among high risk students who were more likely to drop out of the HEOP programs. The literature on persistence and achievement of high risk students showed the difficulty in applying standard academic measures as predictors of success among disadvantaged students. Literature on the issues of predicting achievement among nontraditional students using nonintellective measures was also considered. A behavioral model for predicting success among nontraditional students was developed, and recommendations to maximize access and achievement of such students were offered. Study questionnaires are appended. (SW)

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THE ROLE OF SELF-CONCEPT IN PREDICTING THE SUCCESS OF ACADEMICALLY AND FINANCIALLY DISADVANTAGED STUDENTS WITHIN HIGHER EDUCATION OPPORTUNITY PROGRAMS

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University College
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ABSTRACT

This longitudinal policy study evaluated students of the class of 1982 enrolled for the first time in 1977 in Higher Education Opportunity Programs (HEOP) at nineteen independent colleges or universities across New York State. The purpose of the study was to determine the relationship between a standard measure of self-concept and withdrawal among HEOP students who lack the traditional academic predictors of success. This was not a study to support any specific theory, although it has serious implications for theoretical research. It was intended, rather, to contribute to recommendations for policy formation and action. As this was a decision-oriented study, a strategy for management of supportive services was explored in terms of the possible restructuring, redistribution, and reallocation of resources and services among "high risk" students who were more likely to "drop out" of the HEOP programs. An analysis of the data revealed no significant relationships between this measure of self-concept and two measures of academic persistence, which suggests that current HEOP policies and programs are equally successful regardless of student self-concept, as measured by the Tennessee Self-Concept Scale. The implications of these findings, in light of other institutional variables that were assessed in the study, are discussed.

ACKNOWLEDGMENTS

Undertaking a study of this scope and complexity required a very special commitment by those who participated. We wish to acknowledge all of the students who comprised this sample and to especially congratulate those who graduated. Without the devotion of the HEOP project directors, it would have been impossible to collect not only the initial data, but also the annual data collected over six years.

Also without the continual support of University College of Syracuse University and the New York State Education Department, Bureau of Higher Education Opportunity Programs, this study would not have been. Mr. Ronald Kalinowki provided special assistance with the computer program and analysis. Two graduate assistants were especially helpful in the final preparation of the manuscript. Both Lorraine Arden and Casey Cleary provided invaluable assistance. And finally, we thank Mrs. Jane Frost who provided the technical assistance in preparing the final manuscript.

LDM

Preface

For nearly fifteen years, University College, the Continuing Education College at Syracuse University, has been involved in providing special admission and supportive services to adult students who are from financial and educational backgrounds which would otherwise prohibit access to and success in higher education. These services have been provided through a special state funded Higher Educational Opportunity Program, one of the few available to part-time students. Over that period of time a great deal has been learned about causes of attrition as well as the supportive services which facilitate retention.

However, what was not known is why some HEOP students persist to graduation while others do not, despite common educational and financial backgrounds. This study of full-time students in HEOP programs across the state attempted to determine whether there was a prior non-academic influence which might permit colleges and universities to adjust their opportunity program operations to increase retention as well as graduation rates.

It is in the spirit of improving the quality and efficiency of educational equity programs for educationally and financially disadvantaged students of all ages that this study was conducted through University College. Indeed, the results may suggest that what we provide is more important than attributes they may bring with them when initially selected.

Frank E. Funk
Dean, University College
Syracuse University

FOREWORD

The Higher Education Opportunity Program and its sister programs at the local, state and national levels around the country rest on several key premises: that disproportionately low enrollments in our postsecondary institutions of persons from minority and disadvantaged backgrounds are intolerable from an economic, social and--most importantly--an ethical perspective; that the ability to succeed in college resides in people from all circumstances, if only we have the commitment and ingenuity to provide them the tools; and that traditional instruments for screening college admissions have little to do with discovering innate abilities, but a lot to do with identifying the degree of fortune in an applicant's previous life circumstances.

Because of the latter tenet, the special opportunity or access programs have encouraged college and university decision-makers to place less emphasis than has been customary on students' previous academic records of performance or achievement--high school grades, patterns of coursework, rank in secondary school graduating class, scores on the Scholastic Aptitude Test and other similar measures--and instead to look for other indicators of a student's likelihood of having a successful college experience.

The process of determining whether a particular student from a disadvantaged background is likely to succeed in college, even given adequate support systems, is hardly an exact science. Practitioners typically rely on letters of reference; evidence of "maturity" as manifested in ability to get and keep a job, support a family, hold office in an organization; a personal interview which often seeks to determine how clear this applicant is about motivation and sacrificing short-term for long-term gains; and evidence of various affect characteristics.

The construct of "positive self-concept" has frequently been one such characteristic. The report which follows is very helpful insofar as it demonstrates with some force that self-concept, for this population, is <u>not</u> related to persistence.

The possible trend is intriguing; as more and more prior-to-college factors are found as not having influence over the postsecondary success of students from disadvantaged backgrounds, the more we must speculate that it is the college experience itself which controls. If this is so, those of us involved in programs for this population have a special responsibility to investigate the variability of results among such programs, and to identify, publicize and strengthen those elements which contribute to success.

It is for these reasons this major research paper has made a valuable contribution to furthering the achievement of equity at the postsecondary level.

Stephen H. Adolphus, Chief
Bureau of Higher Education Opportunity Programs
New York State Education Department

INTRODUCTION

What constitutes "success" for the American college student? What are the factors important to its achievement? How can it be predicted? How can it be fostered with supportive services? These questions have interested research scholars and higher education administrators for several years. During the past twenty years, with the introduction of programs to increase higher educational opportunities for the "disadvantaged," or "nontraditional" student, the issues surrounding student access, success, and attrition have grown in both complexity and urgency.

Funded through special legislation by the State of New York, more than seventy-five programs deliver educational opportunities to nearly 6,000 students within the network of HEOP independent colleges and universities in New York. Participating institutions do vary, as well as student characteristics; however, a common thread identifies HEOP students as both educationally and financially disadvantaged. The Regents of the State of New York define the HEOP student in these terms: "The basic test of educational disadvantage is non-admissibility by the colleges normal admissions standards, to the college at a matriculated degree program, except that no student with a Regents Scholarship is eligible."

The Regents set basic guidelines for economic and academic eligibility for all EOP programs throughout the state regardless of student characteristics or type of institution or sector. There are three sectors of higher education in New York - the City University of New York, the State University of New York, and the Independent sector, which consists

of nearly 120 private colleges and universities. Variations include: two year, four year, public, private, church, secular, full-time, part-time, undergraduate day programs and undergraduate evening programs.

New York State was a leader in developing intervention programs at the college level to create access for "disadvantaged" students in all three sectors of higher education, including the City University of New York, the State University of New York, and the independent colleges and universities. With specific regard to the independent sector's role in participating in educational equity programs, nearly eighty HEOP programs are funded throughout the state.

HEOP students are unique in higher education in that they consist of students who would not normally be admitted to an institution of higher education under ordinary admission criteria which are used by individual colleges and universities to select students who can compete on the basis of merit in the academic environment and, satisfactorily complete one of the many different degree programs offered at the undergraduate level. According to data from the 1977-78 HEOP guidelines distributed by the State Department of Education, HEOP students were characterized as having high school averages below 75, SAT scores below 400 verbal and 450 math, a vocational or equivalency diploma and a rank in class in the fourth or fifth quintile.

Consequently, HEOP students fall into a "high risk" category in that, without special supportive services, the risk of failure is high. Therefore, individual college and university HEOP programs are funded to provide intervention services which include: screening, counseling, tutoring, remedial-development courses and financial assistance, designed to minimize the risk of attrition and to maximize graduate rate.

Despite the public record of success in graduation rates, predictably HEOP students do withdraw, raising the question: "Since all HEOP students are educationally disadvantaged and are required to possess those academic characteristics commensurate with predicting attrition; namely low SAT scores, low ACT scores, and low high school average, is there a non-intellective measure, such as a standard measure of self-concept, which could differentiate between those HEOP students who do persist to graduation and those who withdraw?"

If attrition significantly related to a nonintellective measure such as a standard measure of "self-concept," then quite possibly resources and support services could be further refined and administered to increase individual chances of success. The implications of such findings on policy which attempts to generate the maximum benefit from such publically sponsored programs are far-reaching.

In summary, the general inquiry here targets the issue of attrition or "drop-out" as it relates to students whose propensity for success in higher education is low in terms of standard academic admissions criteria. The central issue is whether, in the absence of traditional academic predictors of success, self-concept differentiates those who withdraw from those who persist to graduation.

In Chapter One, a review of the literature on the persistence and achievement of students on the "fringe" of education shows the difficulty in applying standard academic measures as predictors of success among disadvantaged students. Further, the case is not closed on the need for new and systematic research to determine strategies to facilitate success among disadvantaged populations.

Chapter Two consists of a review of the literature which focuses on the issue of predicting achievement among nontraditional students through the use of nonintellective measures. Special attention is given to the selection of the notion "self-concept" as it relates to student achievement in general, and to student success among the disadvantaged, in particular.

Chapter Three outlines the results of a longitudinal survey research project. The study analyzed the significance of self-concept, as measured by the Tennessee Self-Concept Scale, for predicting academic performance among disadvantaged students in nineteen institutions with HEOP programs in New York State.

Chapter Four considers the conclusions of Chapter Three and discusses a behavioral model for predicting success among nontraditional students. Conclusions based upon the findings of the research and literature review are summarized and recommendations are made to support strategies which should be useful in maximizing access and achievement among those who traditionally have been on the outside of the scope of "universal education."*

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*Throughout this study, reference is made to a vast literature base which was written in the late 1960's and 1970's. Since 1980, however, a decline in new research has taken place, resulting in a handful of research projects reported on disadvantaged students, attrition and self-concept.

At a time when an increasing enrollment of minorities and disadvantaged students is expected, less research is being conducted to assist in policy and planning than in the last decade.

One wonders if this population of nontraditional students within higher education is being ignored by educational policy makers, researchers and funding agencies.

CHAPTER ONE

THE PERSISTENCE AND ACHIEVEMENT OF "DISADVANTAGED" STUDENTS IN HIGHER EDUCATION: A REVIEW OF THE LITERATURE AND AN ANALYSIS OF THE PROBLEM

This chapter constitutes a review of most of the important literature on persistence and achievement of "disadvantaged" students in higher education. Because the research literature on student success and failure in higher education is unmanageably vast and varied, a summary of another comprehensive review of the literature is considered here (Tinto, 1975), together with an examination of the particular research which focuses directly on the "disadvantaged" student.

This analysis of the literature is broken into three sections which are intended to focus on three specific concerns:

Section I: Problems and limitations of current research on attrition in higher education.

Section II: Cognitive and academic variables which correlate with measures of success among the general population and the disadvantaged population.

Section III: The relation of nonintellective measures to college success among disadvantaged students.

Section I: Problems and limitations of current research attrition in higher education.

Although Tinto's (1975) review of the research literature dealt only with the phenomenon of attrition in higher education, among a more general

student population than the "disadvantaged," his assessment of the quality and needs of current research is consistent with what has been found in the literature on the disadvantaged student population. The two major shortcomings that Tinto observed in current research are: a) inadequate attention to definitions and b) a shortage of theoretical explanatory models to guide research. With regard to definitions, Tinto noted that researchers generally have used the term "dropout" to cover a broad set of student types: there are "dropouts" who withdraw from college voluntarily and those who are forced to withdraw for academic, as well as for other reasons; there are those who drop out permanently and those who only "stop out" on a temporary basis. When it is not even clear in a particular research report just what type or types of dropout are studied--and this is a frequent occurrence--then comparability among studies is very limited, if at all possible.

With respect to the literature on "disadvantaged" students, the problem of "definitions" is also evident. "Disadvantaged" means many things to many researchers, and "success in college" can be defined in a variety of ways. "Disadvantaged" can mean economic, cultural, aptitudinal, preparational, motivational, or some other kind of educational impediment. "Success in college" can mean achievement in terms of longevity of persistence, a certain level of earned grade point average, occupational status upon leaving college, impact on job security, emotional and intellectual development or, indeed, graduation. As a consequence of this ambiguity, generalizations across the studies reviewed here must be cautious ones, particularly when the policies are directed to students who are <u>both</u> economically and educationally disadvantaged.

Tinto's second observation is that the attrition literature is too descriptive and seldomly based in explanatory theory. Again, this position is applicable to the literature on achievement and attrition among "disadvantaged" students. Tinto writes:

> ...knowing, for instance, to what degree an individual's measured ability and social status relate to the probability of his leaving college does not mean knowing how these attributes affect the process of dropping out from college. Whereas the former requires little more than a simple comparison of the rates of dropout among individuals of differing ability and social status characteristics; the latter requires the development of a theoretical longitudinal model that links various individual and institutional characteristics to the process of dropping out from college (Tinto, 1975).

This is a serious problem with respect to the disadvantaged population when what is often at issue is an explanation of the causal relations between intervention (student supportive services) and success (graduation).

Having identified these two problems in the attrition literature, Tinto went on to list the numerous variables which have been related to the phenomenon of dropping out. Among the many studies he cited, Tinto noted that very few studies have involved multivariate analyses that would allow isolating the independent contribution of various factors which might show a strength of relationship or of causal inference in determining reasons for attrition. Tinto divided variables into two classes: individual characteristics and institutional characteristics.

Among the <u>individual</u> characteristics which have been demonstrated to be related to attrition are the following (a plus sign in parentheses indicates a positive relationship between the variable and dropping out, while a negative sign indicates an inverse relationship):

1-) family's socioeconomic status (-)

2-) educational attainment of parents (-)

3-) parental "urbanity" (-)

4-) parental affluence (-)

5-) quality of relationships within the family (-)

6-) parental interest in and expectations for their child's (-) educati n

7-) measured ability including high school grade point average and performance on such standardized tests as the ACT and SAT (-)

8-) impulsivity (+)

9-) emotional commitment to education (-)

10-) ability to profit from past experience (-)

11-) flexibility in dealing with changing circumstances (-)

12-) emotional stability (-)

13-) anxiety (+)

14-) activeness (+)

15-) restlessness (+)

16-) oversensitivity and egotism (+)

17-) voluntary withdrawals (+)

18-) sex (-)

19-) characteristics of high school attended as they affect ability and perceptions of ability and expectations for college; level of plans for college completion and occupational status (-)

Institutional characteristics related to college attrition include the following: public or private (the former have proportionately more dropouts); two vs. four year programs (the former having more dropouts, even with student inputs taken into account); quality of college (a very complex relationship); and size of institution (+) (Tinto, 1975).

Tinto concluded his review with some comments on what is needed in future research on college attrition. He called for more research on the relationship between race and dropout behavior, on dropouts in urban institutions, and on student and faculty subcultures and persistence. Finally, Tinto argued for research that is longitudinal rather than cross-sectional in nature (Tinto, 1975). The research reported later in this document represents an attempt to meet the several needs that Tinto identified. As "disadvantaged" students tend to belong to minority racial groups, generally attend urban institutions, and clearly constitute a definable college subculture, they provide, in light of Tinto's remarks, an important focus for future attrition and achievement research. However, until the Syracuse University project about New York State Higher Education Opportunity Program students was initiated, no five year longitudinal study had been undertaken.

Also, "disadvantaged" students would seem to be an important research target group because, as a whole, they appear to possess many of the same characteristics which are related to the typical college dropout. Compare the following description of the "nontraditional" or "disadvantaged" student and recent statistical descriptions of college dropouts. Montes and Ortega (1976) described the "nontraditional" college student as one: who is nonwhite (and therefore different linguistically and culturally from the general college population); who seldom falls in the middle income bracket; who lacks the traditional fluency in oral and written English; whose home environment is foreign to college; who was not considered college material in high school either by himself or by the school (and therefore was not guided toward college attendance); and who, due to cultural differences, may be perceived by the typical university community

as emotionally unstable. Other researchers' definitions of the "nontraditional" student usually include one or more of Montes and Ortega's descriptors.

College dropouts, on the other hand, were found in one large-scale longitudinal and multi-institutional study (Astin, 1975) to have had poor high school academic records and academic ability (relative to persisters), lower degree plans at times of entrance, different religious background and preference, more concern over college finances, weaker study habits, and parents with lower educational attainment. Kester (1971), in a large-scale study of community college students, found the following to characterize the potential dropout: most likely to be Black, least likely to be Oriental; likely to come from a less affluent family and more likely to express concern over financial and employment matters; likely to have perceived less parental encouragement for college; likely to have a lower sense of the importance of college; likely to have lower educational aspirations; and three times more likely to be a low ability male than a low ability female.

The parallel between the "disadvantaged" student and the college dropout is seemingly apparent. From this, it would be reasonable to expect dropout incidence to be much higher among "disadvantaged" students than the college population at large. The evidence for this common-sense expectation is ambiguous, however. In one study, for example, Mack (1974) reported that of 502 Equal Opportunity Program students who began college in the fall of 1968 at the University of Illinois (Champaign-Urbana), only sixty-nine graduated four years later. Of course, it cannot be assumed that all the other 433 dropped out--some surely graduated at a later date*--

*It would have been very useful if Mack had better identified the specific status of the 433 nongraduates.

nevertheless it is an indication that "disadvantaged" students' situation is different from that of the general college student population. Eagle (1973), on the other hand, presented evidence that the dropout rates for open-admissions students and for fully qualified students were not significantly different, at least after the first semester of college attendance. In this study of the Bronx Community College, a particularly interesting finding was that of no significant relationship between admissions classification (three types: would have been rejected in 1969 for inadequate high school average, would have been rejected for subject-matter deficiencies, or would have been accepted) and later dropout.

At any rate, research which focuses more narrowly on describing, explaining and preventing attrition among disaggregated student populations, such as "nontraditional" students, is clearly warranted. An indication of how much attrition research is being done with respect to "disadvantaged" students might be found in an annotated bibliography of doctoral dissertations written between 1970 and March, 1975 (Noel and Renter, 1975). Out of sixty-five dissertations listed, we found approximately one-sixth to be specifically involved with "disadvantaged" students, loosely defined to include minority, low SES and low ability college subpopulations. Noel and Renter's list was limited to dissertations and to those on retention in college; so the relative importance of the "disadvantaged" student in other literature categories and with regard to other outcomes besides dropout/persistence cannot be adequately assessed. Independent of Noel and Lenter's search, we found a large number of works that deal with "disadvantaged" students in higher education, leaving little doubt as to their perceived importance among scholars and higher education personnel. However, the volume of studies declined considerably in the beginning of the 1980's.

Section II: Cognitive and academic variables that correlate with measures of success among the general population and the disadvantaged population.

Three questions will be examined in this section: (1) Do the cognitive and academic variables that correlate with college success in the general college population correlate equally well with success among the "disadvantaged" subpopulation? (2) How adequate are the cognitive predictors of success? and (3) What noncognitive variables might contribute to outcome prediction for "disadvantaged" students? In the next section, we shall examine more specifically the relationship between self-concept and academic success among college students in general and among the "disadvantaged" in particular.

As indicated in Tinto's review, the relatively strong relationship between cognitive and academic variables, on the one hand, and collegiate success, on the other, is very well documented for the general student population. For example, in a large-scale study of 217 two and four year institutions reported by Astin (1972) the major predictors of persistence in college were both grades in high school and scores on tests of academic ability. Of course, other variables were found to be related to persistence (being male and a nonsmoker; having high degree aspirations; financing college education chiefly through parental aid, scholarship or personal savings; and not having a job during the school year. However, and this is the point, none was as strongly related to persistence as were high school grades and academic test scores.

Pfeifer and Sedlacek (1970), Stock et al. (1977), and Clemence and Brink (1978), suggest the possibility of differential validity of academic predictors among student subgroups, tested for Black-White differences in

the usefulness of the University of Maryland's Predictive Index Equation. They found that the Index worked as well for Black students as it did for White students, except that high school grades were not a valid predictor for Black males. Pfeifer and Sedlacek concluded that

> the pattern of equal validity in black and white populations, which has been found in a majority of studies considering standard aptitude tests as predictors of college grades, has not been discovered when considering high school grades as predictors (Pfeifer and Sedlacek, 1970).

A major criticism of the Pfeifer and Sedlacek study is that Blacks were not really representative of "disadvantaged" students, since they had entered the university on the same basis as the White students. Furthermore, all the students had made it through the first year. Also, dropouts were not included in the study, therefore, restricting the range of criterion scores. However, Pfeifer and Sedlacek's results do suggest the conclusion of McKelpin (1965), Lacy (1979), and Hart and Keller (1980), that the use of high school grade point average yields a poor prediction of college success for "disadvantaged" students since high school programs vary considerably in reflecting environmental factors.

In a recent discussion of the differential validity issue, Sedlacek (1974) argued that there remains a reasonable doubt that commonly used predictors of college success--standardized tests with high school grades--can be universally applied to all racial groups. His reasons and the equivocal evidence in the literature might be used to justify speculation over differential validity between traditional and nontraditional students as well. First, there never has been an adequate study of the issue. Nearly every study reviewed by Sedlacek used a group of intact Blacks at one or more colleges, correlated their college grades with SAT and ACT plus high school grades, and reached a conclusion. A potential problem with

such an approach is restriction of range, through use of high-level achievers among Blacks and the exclusion of dropouts from the correlational analysis.

Secondly, we predict for the future, not for the past. The point here is that if we want to get more minorities on the fringe in higher education (or more nontraditional students), we cannot admit only the "cream of the crop" as has been done in the past. There are many Blacks, Native Americans, Hispanics and other minorities outside the elite group who, as was pointed out in chapter one, need and deserve higher education, but whose culture and background are different from what is typically measured with the usual predictors and criteria of selection.

Sedlacek reported research to demonstrate that, for Black students, attrition and second-year grades might be more relevant criteria of college success than first-year grades. As for predictors, some empirically established indicators are those that measure "social maturity"--being independent, self-assured, realistic, and able to handle difficult adjustments (Sedlacek, 1974, Fleming, 1978, and Rovezzi-Carroll and Thompson, 1980).

Jensema and Lunneborg (1972) noted that although the predictors that are valid for the general student population tend also to be valid for minority groups, they are not necessarily the best predictors. They refer, for example, to Morse (1963), Ruhland and Feld (1977), and Fry and Coe (1980), who found that Black students' self-perception of ability to succeed in school and motivation to do so provided a better basis for prediction of academic achievement than did a measure of intelligence.

Further evidence of the low predictive power of the traditional cognitive and high school achievement correlates of college success can be found in the following studies: Mack (1974), who reported that Educational

Opportunity Program graduates generated no significant differences on fourteen preregistration cognitive measures when compared to nongraduates of the same program; and Eagle (1973), whose results for open-admission students revealed no clear or strong relationships between entry variables (including high school average, reading score, high school curriculum, type of high school, and admissions classification) and tendency to drop out after one semester.

From the literature reviewed thus far, it appears that the question of differential validity of predictor variables for success of disadvantaged students is still an open question; and, whatever the answer, the traditional cognitive and high school achievement predictor variables that do relate to achievement for regular and disadvantaged students are inadequate at best. In the absence of data to not only predict success, but to also manage supportive services in constructively effective ways, the question to raise is "What value do nonintellective variables have as predictors of college success for disadvantaged students?"

Section III: The relation of nonintellective measures to college success among disadvantaged students.

As late as 1970, Kenrrick and Thomas concluded that "the quest for nonintellective correlates of college success for college aspirants in general and the disadvantaged student in particular has been discouraging." Also Katz (1969) commented on the lack of success among psychologists who have added little to the understanding of motivational problems of disadvantaged students. He wrote that "scientific knowledge has barely advanced beyond the conventional wisdom of the teachers' lounge. In a sense, so few good data are available that virtually any competent foray into the area is bound to be fruitful" (Katz, 1969).

The category of "teachers' lounge wisdom" might be demonstrated in the results of Morrison and Ferrante's survey (1973) of administrators of public two-year colleges. Given ten reasons for attrition among academically disadvantaged students, each administrator was asked to choose the three most influential. The reasons and percentage of administrators choosing each are as follows:

Inadequate finances (student)	47.9
Inadequate emotional stability or immaturity	38.6
Inadequate motivation	36.8
Inadequate finances (institution)	35.0
Inadequate academic ability	34.4
Inadequate institutional support of students	28.1
Lack of supportive peer relationships	27.8
Inadequate qualified administrative staff	17.4
Lack of parental support	14.1
Lack of qualified faculty	5.7
Disciplinary problems	0

This table shows that in at least the opinion of some administrators, the lack of academic ability falls far down the list, especially below inadequate emotional stability or immaturity and inadequate motivation.

Several studies claim significant relationships between nonintellective variables and measures of college success. If membership in a racial minority can be assumed to be related to being "disadvantaged," then there is ample data on disadvantaged students. With a sample of Black university students, Beasley and Sease (1974) found that fourteen nonintellective biographical variables were significantly correlated with both first semester grade point average and cumulative grade point average. Sedlacek and Brooks (1970) concluded from a national survey, also involving Black students, that a positive self-concept and low conformity were useful as predictors of academic success. In a similar vein, Pfeifer and Sedlacek (1974) found that several variables on the California Psychological

Inventory, the Holland Vocational Preference Inventory, and a university census differentiated among students in terms of their end-of-year grade point average at the University of Maryland. They also found some differences between Black and White samples.

Montgomery (1969) studied a sample of "high-risk" freshmen at a community college, all of whom had ranked at or below the fortieth percentile in their high school graduating classes. She found that the academic success of these students (presumably those with higher grade point average) worked significantly more hours per week, reported more problems in the area of finance, living conditions and employment, and, had a significantly greater listening ability than the nonsuccessful students. Data trends revealed that among this high-risk sample: college success was more related to family educational status than to economic status; unsuccessful students tended to come from small graduating classes and successful students from large classes; a larger percentage of the successful students felt they had the possibility of college success; fewer of the successful group had immediate plans for military service or full-time work; and successful students had a higher average score in all seven areas of the Survey of Study Habits and Attitudes (Montgomery, 1969).

In his dissertation, Byas (1971) found several nonintellective variables that differentiated successful from unsuccessful high-risk students. Success involved relatively high faculty ratings in five academic areas. Successful students scored significantly higher on scales of the California Psychological Inventory which measure "sense of well-being," "responsibility," "socialization," "tolerance," "good impression" and "communality." On a College Freshman Questionnaire, successful students were found to have had more reading materials and library usage while in high school,

higher parental schooling, higher parental aspiration for them as they perceived it, higher educational aspiration, higher estimates of their preparation for college, and perceptions of higher personal worth.

Berger (1973), who defined the nontraditional student as one characterized by low aptitude and low socioeconomic background and who also would probably not have gone to college in previous years, conducted a longitudinal study of attrition at a large urban university. Berger determined that family support was significantly related to attrition.

However, Thompson (1971) and Hunter (1979) found that the noncognitive variables that predict college success for "disadvantaged" students are not necessarily the same ones that predict success for regular students, thus complicating the differential validity issue. She compared a specially-admitted group of students, who were primarily Mexican-American and Black and who lacked traditional academic credentials for admission into selective colleges. She compared the disadvantaged group with a regular-admitted group. While the results showed a general similarity between the two admission groups in social and personality data (despite their socioeconomic and educational differences), the prediction data revealed marked differences. Thompson reported that for the group of disadvantaged students, such noncognitive measures as family support, parental religious commitment, personal values of conventionality, certainty, personal strength and independence, and self-esteem are useful to predict success. The predictor measures were less effective for the regularly admitted group, but those that were predictive were moral judgment processes, family support, nonethnicity of friendships, and self-evaluation. College success was broadly interpreted by Thompson to include academic, social and self-esteem criteria. Thompson's results led her to conclude that while the standard academic measures appear to

predict success for regularly-admitted students, certain noncognitive variables appear more appropriate for expectation about the success of the "disadvantaged" student.

In this review, the noncognitive variable of self-concept or self-esteem has often surfaced as a variable that contributes to the prediction of college success. In the next chapter, the literature in which "self-concept" is linked to academic achievement will be reviewed. However, with respect to attrition, there are a few particularly useful studies worthy of mention. Burkett (1972) conducted a study with dropouts and persisters in a Neighborhood Youth Corps Program in Mississippi. It was found that high school persisters differed significantly from high school dropouts on nine of the twelve sub-scales of the Tennessee Self Concept Scale (TSCS). Burkett concluded that for the low-income population he studied there was a definite correlation between self-concept and school persistence or withdrawal.

In two other studies of the self-concept (as measured by the TSCS) and academic persistence: Menning (1973) found it of little use in discriminating between persisters and dropouts in a regular college population; on the other hand, Smith (1972) found that among forty-five visually-handicapped college freshmen, persisters and dropouts differed significantly on seven specific scores of the TSCS.

The research indicates that there is little doubt that noncognitive measures do correlate with college success, whether that success is viewed as persistence or as academic achievement or some other criterion. However, it is not clear which of the myriad noncognitive variables best correlate with college success consistently enough to justify their use in prediction, especially with "disadvantaged" students. It is also

problematic as to how much noncognitive variables add to the prediction power of those cognitive measures traditionally used in prediction. These problems will be explored and classified in Chapter Two with special attention paid to self-concept and academic achievement.

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CHAPTER TWO

SELF-CONCEPT AND ACADEMIC ACHIEVEMENT: A REVIEW OF THE LITERATURE AND DISCUSSION OF THE ISSUE

In Chapter One an initially broad discussion of attrition among the general college student population has been narrowed into a consideration of the research literature regarding the relationship between several indicators of college success (persistence, graduation grade point average) and a variety of nonintellective variables (attitudes, personality characteristics, biographical factors) among disadvantaged students. In this chapter, the focus will be further narrowed to examine the specific relationship between academic achievement, especially grade point average, and one nonintellective concept, the self-concept. As academic achievement has been found to be the most important variable in relation to persistence among the general student population (Tinto, 1975); and as self-concept would seem to be an important variable in predicting student functioning, especially among disadvantaged students (Thompson, 1971 and Beane, et al., 1980), the relationship is worth investigation.

The theoretical proposition that undergirds much of the recent research on self-concept and academic achievement can be simply stated as follows: Other things being equal, the more optimal the self-concept, the more effectively the individual will function (Fitts, 1972). Starting with this proposition--which has roots in the psychological theories of William James and of Freud (Knapp, 1975), of Rogers and of Snygg and Combs (Bailey, 1971; Cowan, 1978; and Reynolds, 1980)--a growing number

of researchers have made attempts to define and measure the concept of self-concept. In addition, researchers have made efforts to relate self-concept to a variety of behaviors, and use it both as a behavior predictor and as an intervening variable which can suggest strategies to specific behaviors.

At the time of his writing, Fitts (1972) reported that there were approximately ninety studies of the relationship of self-concept to academic performance in which the Tennessee Self-Concept Scale (TSCS) was employed to measure the construct.* Since the TSCS is only one of several instruments used to assess "self-concept," Fitts' estimate probably represents a small portion of the volume of total research. Nevertheless, when self-concept and achievement are considered in relation to the subpopulation of disadvantaged college students, the number of studies appears to rapidly diminish. Thompson (1972) reported that, as of 1972, there was only one study that had reported using the TSCS with disadvantaged college students. In addition to Thompson's findings, only a few other relevant studies were found which are reported below. Considering this wide gap, and acknowledging the conflicting results on self-concept and academic achievement in the literature as a whole, there clearly is room for more delineated research, particularly as it deals with disadvantaged students.

Knapp (1975), in a recent discussion of several self-concept measures, outlined several problems that obtain in the study of self-concept and academic achievement. Knapp's observations were similar to the general comments made by Tinto (1975) in Chapter One. An important point is that of ambiguity in using the definition of "self-concept." She noted that her study of the literature and the state of the art revealed:

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*The TSCS is replicated in Appendix B. William Fitts is the creator of the TSCS and holds its copyright.

> an endless list of terms such as social self, self regard, self esteem, self evaluation, phenomenal self, self image, etc. Many of these terms have overlapping definitions, and the theories associated with them are ambiguous and incomplete with no one theory receiving a large amount of meticulous empirical exploration. Thus when the evaluator's or educator's task is to study self concept in the school setting, he is faced with the dilemma of not knowing exactly what he is studying and, of course, how he is to assess or measure its extremes or changes.

Also confusing is the fact that some definitions of "self-concept" are global, multi-dimensional ones (as, for example, self-concept as measured by the TSCS, which involves an individual's notion of physical, moral-ethical, personal, family and social self). Other definitions are more or less unidimensional or situation-specific (such as self-concept of academic ability). In addition, the problems are compounded by the distinction that some researchers make, or fail to make, between self-concept in terms of how an individual describes himself and his behavior; and, self-concept in terms of how an individual evaluates himself and his behavior (Kubiniec, 1970). Finally, there are some researchers who measure the discrepancy between perceptions of one's actual self and notions of what one would ideally like to be.

As definitions of self-concept vary, so also do the "self-concept" measuring devices and instruments. To help alleviate the lack of consistency in definitions and operational research, Knapp (1975) argued for research that is based on clear reasoning which includes a theoretical as well as operational definition of the self-concept being investigated.

After a brief review of the research in which self-concept is related to academic achievement (and, indirectly, to attrition) among both the general student population and the disadvantaged, we will examine several other related issues voiced by Knapp (1975), particularly as they relate to a specific measure, the Tennessee Self Concept Scale (TSCS).

As noted earlier, there is also a cadre of definitions of "achievement" and "success." But when academic achievement is defined in terms of performance on standardized achievement tests, the evidence of its relationship to self-concept, at least as measured by one instrument, the TSCS, is neither strong nor conclusive (Fitts, 1972). In his comprehensive review of studies in which the (TSCS) was used, Fitts concluded that the results of numerous studies presented a vague picture, "indicating few clear, consistent or significant relationships between TSCS scores and scores on standardized achievement tests." Among several studies of disadvantaged high school students and adults, no statistically significant correlations were found.

Although several studies reviewed by Fitts did report some significant correlations, none employed all of the TSCS scale scores, and some used only the Total Positive score (an overall index of general self-esteem).

According to Fitts, specific results in this area are difficult to interpret and the total mass of evidence is uncertain for several reasons; not withstanding the theoretical problems associated with "self-concept":

1. The TSCS and most other self-concept measures are too general in nature and not sufficiently focused upon the self in a specific academic setting to demonstrate the "true" relationship between self-concept and academic performance.
2. Most studies do not use <u>all</u> the available information from the TSCS.
3. "Self-concept" seldom relates to <u>any</u> kind of performance or achievement in a purely linear fashion, especially since extreme self-esteem scores can be viewed more as potentially

debilitating defensiveness than as high self-esteem; and

4. Standardized achievement tests are only one of many performance criteria, and one that is probably less meaningful and significant to the individual himself than such criteria as course grades or pass/failure (Fitts, 1972).

For example, when grade point average (GPA) is taken as the criterion of academic achievement instead of performance on standard tests, stronger relationships between achievement and TSCS scores have been detected. Fitts (1972) wrote:

> This seems logical in view of the fact that an individual's course grades are more a product of his total self than are his scores on an achievement test. In turn, his immediate school performance, compared with the standards of his school and in relation to his own classmates, probably has greater significance for his total self-concept than his score on an impersonal nationally standardized achievement test (p. 29).

In his review of literature relating the TSCS to GPA, Fitts divided up the literature into four types of studies. Fitts' review and typology is very helpful. However, where it is appropriate studies not reviewed by Fitts will be included here to expand on the four types of research originally described by Fitts in 1972:

1. The first type consists of those studies in which groups classified first on the basis of self-concept were then compared for differences in GPA. In several of these group comparisons, college students found to be high in personality integration, and, hence, high in self-esteem (the co-variation of the two constructs has been amply demonstrated), had higher GPAs than randomly chosen, normal comparison groups. No additional studies of this kind have been found either to support or refute the results reported in Fitts' review.

2. The second group of comparative studies involved first the classification of students by GPA and then comparison with regard to self-concept. Among those that Fitts reviewed which were all completed before 1970, the evidence for a relationship between the two variables is generally not supported. Remember that all these studies involved a global measure of self-concept using the TSCS.

Kubiniec (1970) investigated the relationship between self perception of incoming freshmen as measured by a semantic differential, and high, moderate or low achievement, and attrition. The results of her analysis were mixed, but convincing enough for the following conclusions:

> The results indicate that academic success in college can be predicted by measures of global perceptions of one's self and one's environment. They suggest that attempts to improve the prediction of academic achievement through use of non-intellective variables should consider use of global self-perceptions as well as the specific personality traits frequently employed. They further suggest that measures of self-perceptions employed should include perceptions of one's environment as well as perceptions of one's self.

While her conclusions partially disagree with those claimed by Fitts, Kubiniec does note that it is important to try to get at more specifically defined aspects of the self-concept. In addition to Fitts and Kubiniec's work, two additional studies of similar design were reviewed, but in which a narrower definition of the self-concept was employed. The results of the two reveal positive relationships between self-concept of academic ability, on the one hand, and reading ability (Mangieri and Olsen, 1975) and cumulative GPA (Bailey, 1971), on the other. Bailey's study is particularly relevant here as both his high and low achievement groups (GPA = 2.25 and 1.45, respectively) were matched in terms of sex, class rank (presumably, high school) and a test of college ability. Both groups were low ability college students, sharing a characteristic

common to many disadvantaged students. The high achievement group scored significantly higher than the low group on self-estimates of their college ability; higher in desired level of college ability; lower in discrepancy between self-estimate and desired level; and lower in discrepancy between self-estimate and actual measures of college ability, even though the ability level between the two groups was about the same.*

In a study of high school students, Coffin, Dietz and Thompson (1971) tested thirty high-achieving ("B" average or better) tenth-graders and thirty low-achievers (below "C" average) who were matched on sex, age and intelligence test scores. The groups were given two nonintellective tests: a semantic differential to measure perceptions of situations and significant persons (including the self), and a Self Appraisal Scale, involving perceptions of self competence in social, academic, personal and other nonintellectual activities. Coffin et al. found that high achievers held significantly more favorable attitudes toward school, discipline and teachers. There was, however, no significant difference between the two groups in self-attitudes for the first measure. Yet, the Self Appraisal Scale did reveal some differences. High achievers rated themselves as higher on academic competence and personal competence, while low achievers rated themselves as higher on social competence.

3. The third set of studies in Fitts' (1972) review are those that report the strength of <u>correlation</u> between nonaggregated self-concept scores

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*For what it is worth, Olsen (1970) reported that a sample of Black and White EOP undergraduates, when measured in self-concept of academic ability, perceived themselves as slightly <u>above</u> the average student in academic ability. This finding might be <u>useful</u> here if it could be compared to the self-concept of academic ability scores in Bailey's study. Unfortunately, it cannot.

and achievement, that is, without having grouped subjects into pre-determined groups, as was done in the studies discussed above. The research described by Fitts revealed very few significant correlations between the two variables, for high school or college students. In contrast to Fitts, Purkey (1970), Rubin (1978), and Johnson (1981), did find several studies which showed a link between self-concept and achievement. In addition, Nichols and Shauffer (1975) also reported some positive findings. They reviewed fifteen studies of the "effects" of self-concept (as measured by the TSCS) on college performance (academic achievement, attrition, student teaching effectiveness, etc.) among male and female undergraduates. They found that: 38% of the reported findings indicated significant positive relationships between overall self-concept and college performance variables. Of the ten studies that dealt specifically with achievement and attrition as dependent variables, only one-half reported significant positive relationships between them and self-concept.

In their own research, Nichols and Shauffer (1975) collected and analyzed data for 158 female junior college freshmen, the majority of whom came from the upper-middle class. They found a slight, nonsignificant relationship between TSCS scores and cumulative GPA, at time of leaving school or graduating. They also found that persisters, transfers and dropouts did not differ significantly on mean overall self-concept scores. They suggested that, since the evidence for a self-concept/academic performance relationship is so inconclusive, perhaps other nonintellective variables might be better predictors.

As for other studies not reviewed by Fitts or Nichols and Shauffer, several are of interest here. In one Ph.D. dissertation, Fekrat (1969) related self-concept (measured by the California Test of Personality) to

GPA among a random sample of freshmen and seniors at a four-year college. Self-concept was found to be significantly and positively related to GPA when measures of self-concept preceded measures of GPA (thus demonstrating short-range predictive validity), but not when GPA was measured before self-concept.

Jones and Grieneeks (1970) tested a large sample of male and female sophomores at the University of Texas, Austin, in 1967 with three instruments: the Identity Rating Scale, Self-Concept of Ability and Self-Expectations. The researchers used the scores on these three scales, plus the SAT scores, to predict the GPA of that semester. All the predictor variables were found to be significantly and positively associated with achievement, and all were positively associated with each other (except self-expectations and scholastic aptitude). Jones and Grieneeks found self-concept of ability a reliable predictor, even more so than SAT scores in this case.

Turning to the population of disadvantaged students, Klingelhofer and Hollander (1973) reviewed a rather large number of studies of various design types in which self-concept was related to academic achievement among elementary, secondary and college students. They suggested, [as I do,] that some measures of self-concept or self-esteem might be useful in predicting academic achievement. They argued that

> the ability to differentiate high from low-achieving students that these scales manifest indicates that a favorable self-concept is an element in educational attainment and its betterment a legitimate concern of all who share in the responsibility for the education of students at all levels. . . . The self-concept seems to be a consistently valid predictor of academic performance. While not so powerful as more conventional indices in most instances, it adds usefully to multiple predictions (pp. 51-52).

There are several other studies on the topic of the disadvantaged student which were not discussed by Klingelhofer and Hollander. As an instance, Renbarger (1969) found a positive relationship between self-esteem (as measured by the TSCS and a specially designed instrument) and academic achievement, which was understood in terms of language and arithmetic sub-tests of the Iowa Test of Basic Skills. Renbarger's positive relationship was based on a study of a group of fifty-nine disadvantaged adult Black women in a clerical training program. Also, Saxbury (1973), Mitchell (1979), and Johnson (1975) reported that, for senior boys and girls in two high schools, significant relationships were found between self-concept and scholastic ability, and between ideal self-concept and each of the following: GPA, scholastic ability, and scholastic achievement. Saxbury measured self-concept, ideal self-concept and other self-concept dimensions, by employing a standard measure known as Bill's Index of Adjustment and Values.

In another important study, Daly (1972) compared thirty-nine "high risk" students with a group of students randomly selected from the non-"high-risk" pool. The "high risk" students had an ACT-calculated probability of earning a "C" grade of .30 or less. These "high risk" students were enrolled in an intensive education program. Daly found that neither ACT scores nor self-esteem predicted academic achievement in this study. She noted that the "high risk" students with a poor prognosis for success--those with low probability of a "C" and low self-esteem scores--achieved as well as the other freshmen.

However, another research project arrived at somewhat different results. Smith (1972) related self-concept of academic ability, using the Michigan State scale, as well as SAT scores, and several

internal-external variables to academic achievement (Quarterly Point average). She conducted her study among 147 educationally disadvantaged and specially-admitted Black students in a University of Pittsburgh Community Education Program. Her results revealed a significant relationship between self-concept of ability and QPA; none between SAT and QPA; none between control ideology, individual-system blame, and race ideology, on the one hand, and QPA, on the other.

Smith's study adds more support to the argument advanced by Fitts (1972) and Klingelhofer and Hollander (1973) that more specific measures of self-concept can be expected to correlate more highly with academic achievement. Smith also demonstrated that other nonintellective variables, such as the external-internal variables, are not as useful as "self-concept of academic ability" in achievement predictions.

Three additional studies are worth mentioning. Pfeifer and Sedlacek (1974) found that the "self-acceptance" scale of the California Psychological Inventory did not correlate significantly with end-of-year GPA among Black freshmen at the University of Maryland in 1968-69. Sacks (1973), in a study of Black male New York City high school students, found no significant relationship between the following:

a. between Black identity (drawing Black men in a draw-a-man task) and GPA,

b. between scores on the Rotter Internal-External Control Scale and GPA,

c. between self-regard/self-acceptance and GPA.

4. The fourth set of studies reviewed by Fitts (1972) involve attempts to gauge concurrent and sequential changes in self-concept and GPA. These studies are not static group comparisons. Instead, they are

longitudinal in design, in which the two variables are measured using the same subject sample at two or more points in time--generally before and after some planned intervening attempt to increase self-concept and GPA. The most common device was group counseling. The studies Fitts reviewed in this fourth category generated mixed results, some of them demonstrating that group counseling or group guidance does lead to subsequent changes in self-concept and GPA, and other studies in which it does not.

In one study of disadvantaged high school students reported since Fitts' review, McCormick and Williams (1974) found that their samples increased both in level of academic achievement and in self-concept (TSCS) after participation in an Upward Bound Program.*

In all four types of research on self-concept and academic relationship reviewed by Fitts, it is clear that no conclusions can be drawn. While there have been many failures to support the hypothesis of a relationship, there have been just as many positive results. Continued and more refined investigation is warranted. It is also clear that the self-concept is a complex, multi-faceted construct, which requires systematic, theoretical clarification. Beyond the analytical problems with the concept of "self-concept" as noted in the beginning of this chapter and the inconsistent conclusion from the research reviewed here, there are several questions of interest important to the study discussed in Chapter Three. They are:

1. Does low self-concept result in poor achievement, or does poor achievement result in a lowered self-concept?
2. Can self-concept be changed? If so, what procedures or teaching styles work?

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*The Upward Bound Program is a Federally funded plan to provide tutoring, counseling and special courses for disadvantaged students who, with supportive services, might enter the higher education system.

3. Do "disadvantaged" students have lower self-esteem than majority group students? All the time? Under certain conditions?

4. How much do response sets and defensiveness on the part of subjects affect their scores on a self-concept measure--in particular, self reports?

5. Do particular cultures influence the way individuals evaluate themselves? (Knapp, 1975).

1. Since a large number of studies have demonstrated a positive and significant relationship between self-concept and academic achievement, what can be said about the nature of that relationship? Is it a causal one? If it is, what is the direction of causality? Does self-concept affect academic achievement or is it the other way around? Do both self-concept and achievement co-vary, being affected by some third important variable? This is the essence of Knapps' first of the five questions.

One of the serious problems with much of the research done on self-concept and achievement has been the fact that it is only correlational. Little can be said about causal direction between the two variables. In many of the studies reviewed here, the common-sense assumption is implicitly made that self-concept affects achievement and, therefore, an increase in the latter. For example, in his study of low-ability students reported earlier, Bailey (1971) wrote that the results (high and low achievers having, respectively, high and low self-concepts of ability) suggested the following:

> For the achieving student, the self-concept of his ability might be the most decisive factor in his success in the academic environment. Unfortunately, the underachieving student is often caught up on a self-defeating cycle that Combs has called the circular effect of a given concept of the self. Such a student is continually using feedback from parents, classmates, and grade reports to support and stabilize a negative self view of his academic ability. This negative self view in turn results in poor to failing academic performance which serves as "objective" evidence to the student that he does not have the necessary ability (Bailey, p. 190).

While Bailey suggested that self-concept of ability leads to lower or higher achievement, his point about the circularity of the relationship seems reasonable. Could it be that low achievement leads in the first place to low self-concept? The question is one that cannot easily be resolved. Ideally, an answer might be provided by conducting a long-term, longitudinal study in which the effects of every variable on each other could be measured for a given sample of students. The expense and difficulty of doing such research have presumably precluded its being utilized to date, at least with self concept and academic achievement.

Chahbazi (1971) cited research which documents the hypothesis that high academic achievement may result in higher self-esteem which, in turn, may increase the motivation for higher grades in the future. In his opinion, students from elementary school increasingly used their academic experience to revise their self-concept. Although the self-image is probably acquired mostly in social situations, one cannot, according to Chahbazi, view self-concept as either a determinant or a result of nonacademic social experience. Chahbazi argued that because the self-image may be tied to prior experience, it is of utmost importance that its measurement precede the measurement of academic achievement. Academic failure does qualitatively and quantitatively change self-concept and, therefore, if this failure occurs first, it would be impossible to use self-concept as a predictor of causal significance.

Recall that Fekrat (1969) did measure the self-concept before GPA and demonstrated its short-range predictive validity for a general college student sample. When he measured GPA before self-concept, he did not find a significant and positive relationship.

In a statistical analysis of racial variations in the development of self-concept, Picou, Cosby and Curry (1975) employed a procedure known as path analysis, which, while not conclusive, does allow an estimate of causal inference. They reported that for a sample of 99 Black and 127 White high school youths, academic performance appeared to be an important variable which intervened between verbal ability and academic self-concept. The academic self-concept of Black youths was "determined" by significant-other influences, academic performance and mother's educational level. For Whites, verbal ability, significant-other influences and academic performance generated the strongest results. They claimed that interpersonal influence and academic performance both have an impact on academic self-concept.

This review shows that whether the self-concept affects academic achievement or vice versa, or both, or neither, is still an open question. Despite limited research, the safest guess at this time appears to be that, if the relationship is a causal one, it is probably circular, a vicious cycle for the underachiever, and a success-breeds-success cycle for the achiever.

2. The second question raised by Knapp was whether the self-concept could be changed. Assuming for the moment that self-concept and academic achievement are positively and significantly related for the disadvantaged college student population, and that the former impacts on the latter, it would be of unhappy use to the educator who wants to improve achievement, if self-concept could not be changed. As reported earlier in this review, Fitts (1972) found disparate evidence regarding the effect of group counseling on self-concept, as measured by the TSCS. He did caution, however, that one should not expect changes to be immediate. One of the studies he

reported on seventh and ninth graders showed changes in self-concept and academic achievement, but long after a counseling program had started (in Fitts, 1972).

Five more studies are of interest to the general problem of the relation of self-concept to achievement. They are reported here in the order of the most positive indication that the self-concept can be increased.

First, Daly (1972) reported that in her study, which was discussed earlier, "high risk" students and regular students differed significantly in initial level of self-esteem--the control group having higher self-esteem than the "high risk" students. After the "high risk" students underwent a year of an intensive education program, however, they were found to have increased significantly in self-esteem, and to be significantly higher in self-esteem than the control group.

Second, Gonzales (1974) studied the success of Mexican-American students in the Challenge Program of the University of Michigan-Flint. He reported that the program had a positive effect on the students' self-image, attitude toward education, and degree of community participation. Gonzales used Likert-type scales to measure student perceptions in which the program group was compared to nonprogram Mexican-American students and to the total University population.

Third, in his study of "high-risk" freshmen, Ankenbrand (1971) took pre- and post-test measurements of self-concept (TSCS) for three groups: a control group, a group-structured group, and a leader-structured group involved in a small group personal growth experience in a human relations class. While all three were groups of low ability students, they were also low in self-concept at the outset. In the final analysis, there was little significant difference among them at either the pre- or post-test measurements.

Fourth, Mynatt (1972) reported that among three groups of first semester junior college students: a random group from the general population; a group counseled to enter a developmental education curriculum but who did not; and, a group who were advised to enter and who did, there were no significant changes in self-concept over the course of the first semester. Mynatt used the How I See Myself Scale.

Fifth, there is the case in Renbarger's (1969) study of disadvantaged Black women in a clerical training course. After a ten-week group guidance experience, those who had participated were found to have decreased in self-esteem, though not significantly, as compared to those who had not participated. Renbarger used the TSCS to gauge self-concept.

It would be unreasonable to expect uniform and equally positive or negative results of the different attempts to change self-concept, particularly since there is so much variance in the type, length and intensity of programs reported in the literature. However, the data do reveal that the "self-concept" can change in a relatively short span of time. It is important here to be reasonably sure that the research involves the use of reliable and valid measures.

3. The third question raised by Knapp (1975) is whether the disadvantaged student regards himself in lower esteem than the average student in the college population. If he does not, it seems unreasonable to expend valuable resources on improving a characteristic that might have little additional relevance to the disadvantaged students' situation, above and beyond that for the entire college population. As in the previous two questions, the evidence is mixed.

Klingelhofer and Hollander (1975) devote a substantial part of their study of disadvantaged students to the issue of whether there

is a difference between the average student, at all educational levels. They present a great deal of evidence, but it is all very complex and patchy, confused by variables of race, sex and other classification variables. They present ample evidence to document differences, but it all depends on how one chooses to define tne disadvantaged student.

Among the studies reviewed on this question of variation in self-concept, three indicated that disadvantaged students had lower self-concepts than their "normal" peers (Thornburg, 1972; Daly, 1972; and Saxbury, 1973); one revealed no difference between disadvantaged adult students and a control group (Renbarger, 1969); and two reported that disadvantaged students actually had higher self-concepts than their comparison groups (Bartee, 1967, Soares and Soares, 1971, Webster et al., 1979). The reasons for such variation in results appear to be based in the specific differences in sample types and in the different self-concept measures used among the six studies. At any rate, the evidence is too meager to warrant even tentative solutions regarding the comparability of self-concept of "regular" students and that of "disadvantaged" groups. More research is clearly required.

Now consider Knapp's (1975) fourth and fifth questions which involve issues in the measurement of self-concept among disadvantaged students, as compared to the previous questions which primarily dealt with different relations of self-concept. Knapp was specifically concerned with possible defensiveness in answering self-concept items and, with cultural differences in self-evaluation. Although these problems can seriously threaten the validity of any self-supporting personality measure, they are of particular interest in the case of self-concept measurement among the disadvantaged. Unfortunately, very little research has been conducted on the entire

question of validity of self-concept measures among the general college student population; and much less still among disadvantaged students.

In her discussion of the utility of self-concept measures for educational assessment, Knapp (1975) noted that such noncognitive measures (self-concept) are generally less stable than cognitive ones (standard achievement). As for validity, Knapp wrote:

> . . . instrument developers and users have relied heavily on expert judgment and theories which may lead to content validation, but which do not speak to construct or criterion related validation. Very few instruments have undergone convergent and discriminate validation--that is, the study of the interrelationships between more than one method of measuring self-concept and other constructs which may be similar or dissimilar to self-concept.

This observation is not, however, applicable to all instruments. For example, in the manual for the Tennessee Self-Concept Scale (TSCS), (Appendix A) Fitts (1965) reported that test-retest reliability coefficients for all major subscores of the instrument ranged from .61 to .92. These subscores are based on studies with a sample of 626 individuals who varied with respect to age, ethnicity, socioeconomic status, and educational level. When repeated measures were taken on the same individuals over extended periods of time, profile patterns of the TSCS scores remained very similar. Quite independent of any theory of self-concept, the reliability of the TSCS appears to be fairly well established for a variety of groups of individuals. However, at this writing there are no reliability data for disadvantaged college students as a specific sample type.

Fitts assessed the TSCS with regard to two types of validity:

1. content validity of the items and subscales, in which he used unanimous agreement among expert judges to determine inclusions; and

2. construct validity, in which it was found that the TSCS discriminated effectively between psychiatric patients and non-psychiatric groups, as well as among types of psychiatric patients. It also correlated with various other measures of a similar construct and it registered changes, as a result of therapy.

There are several studies in which the construct validity of the TSCS among student populations has been assessed, but there are none that focus specifically on the disadvantaged student. In one study, on the general student population, Vincent (1967) assessed the relationship of the TSCS to several other noncognitive measures. Among 109 college students, the TSCS Personal Self Score and the Self Satisfaction score correlated significantly with each other, with "Security" from the Security-Insecurity Inventory, and with "Confident Adequacy" from the Sixteen Personality Factor Questionnaire. Personal Self and Self Satisfaction did not correlate significantly, however, with "Self Acceptance" on the California Psychological Inventory or with two emotional control variables from the California Psychological Inventory or the Sixteen Personality Factor Questionnaire.

In another study, Drude (1972) investigated the construct validity of seven different scales from four standardized self-report instruments: the TSCS, the California Psychological Inventory, the Personal Orientation Inventory, and Index of Adjustment and Values. These instruments and a fifth specially constructed one-sentence self-rating scale were administered to a group of male college undergraduates. They were also given to a group of psychiatric patients in a Veterans Administration hospital. The student sample scored significantly higher than the patient group on four

of the eight self-concept scales, but neither of the two TSCS scales used (Self Satisfaction and Identity) was among the four that discriminated the groups successfully. The two TSCS scales did interrelate significantly with most of the other scales, however. Another of Drude's findings was that factor analyses indicated that most of the scales measured a single, common major construct for both groups. Yet he cautioned against assuming that self-report self-concept automatically represents the self-concept. He noted that factors such as social desirability, defensiveness, and situational variables should be recognized as affecting self-report scores.

In this literature review, three attempts to assess the internal construct validity of the TSCS with college samples have been found. Each reported the TSCS to be extremely complex, requiring additional validation with heterogenous groups. Earlier in this review, several studies were reported which employ the TSCS to assess the relationship between self-concept and academic achievement or persistence, as well as to register changes in self-concept related to educational programs. These studies have a bearing on the validity of the TSCS as a measure of self-concept among college students. While not all of the evidence supports the instrument's validity, it is clear that the TSCS does no worse than other global measures of the self-concept. As far as disadvantaged students are concerned, the research is far too limited to warrant any conclusions on this issue. Differential validity among certain subpopulations is always a concern, but there is little reason to believe that the TSCS is any less or more valid a measure of-self-concept for the disadvantaged student subpopulation.

Also, very little can be said about cultural differences as they relate to the TSCS. In some studies it appears that racial or socioeconomic

differences in self-concept do occur, but whether these are real differences or are artificially caused by culture-specific (culture "unfair") instruments is a totally open question. While the TSCS has been used with a variety of subject samples, it has never been demonstrated in the literature (nor even suggested) that it would not be appropriate for use with the disadvantaged student population.

In dealing with Knapp's five questions, the entire discussion of attrition and achievement among disadvantaged students in higher education has focused on individual characteristics as either predictors of or causal influences in academic-related behaviors. The literature reviews both cognitive and noncognitive variables, but much more attention has been given to the latter and, of course, particularly, to self-concept. This is so, because the population we are reviewing is defined in terms of the absence of achievement and academic success. Having narrowed the scope of this review, it is not suggested, however, that self-concept, or any other individual characteristic for that matter, is alone sufficient for prediction or explanation of academic achievement or persistence to graduation.

Attrition and academic achievement are, of course, multifaceted and, as such, would seem to derive from a variety of different interacting influences. Some of these factors can be expected to reside in the individual cadre of personality traits and academic strengths, but others can obviously be expected to rest in the character of the environment.

What we can conclude from this review is that "self-concept" is ambiguous and, therefore, much work needs to be done. However, standard measures of self-concept which relate correlations between factors of noncognitive dimension might be used as a predictor of persistence to graduation, despite the need for further validation of instruments and the need

to research the specific disadvantaged subpopulation.

Despite these considerations, it was believed that if there were a relationship between self-concept and achievement among Higher Education Opportunity students, then both policy and management strategies could be designed tc reduce attrition, to increase graduation rates and to generate a greater return on the public investment in programs for disadvantaged students.

Chapter Three contains a discussion of a research project conducted among nineteen colleges and universities which was designed to determine the role of self-concept in predicting the success of academically and financially disadvantaged students within Higher Education Opportunity programs.

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CHAPTER THREE

SELF-CONCEPT AND ACADEMIC ACHIEVEMENT: AN ANALYSIS OF NINETEEN PRIVATE COLLEGES IN NEW YORK STATE

Introduction

Determining the factors which contribute to withdrawal from college is a complex multidimensional problem. Without an accurate explanation of the causes, conditions, and types of withdrawals, it is difficult to develop an effective approach to minimizing attrition. The significance of the problem of withdrawal in general is far reaching in the current climate of dwindling enrollments in higher educational institutions. In particular, the problem of attrition among HEOP students impacts on affirmative action efforts when the minimal requirements for employment are an undergraduate degree.

Is there, then, a procedure for identifying those who are more likely to withdraw than others, within the sphere of this fragile sub-population within higher education - the HEOP student? The question arises, how can the HEOP programs, and indeed, how can the state, maximize the expenditure of its resources in order to assure that these students will succeed at some acceptable rate?

The basic thesis was that a standard measure of self-concept, as in the case of the Tennessee Self-Concept Scale (Appendix B) would differentiate between those who drop out after the first year and those who go on to graduate. It was believed that those who did "drop-out" after the first year might have a lower self-concept than those who remained

to graduate. On the other hand, it was thought that those who went on to graduate would have characteristics associated with a higher self-concept as measured by a nonintellective measure such as the Tennessee Self-Concept Scale.

Methodology

A. Design: This study employed a longitudinal survey research design in order to investigate the following two research questions:

1. To what extent does a score from a standard measure of self-concept predict persistence among disadvantaged students enrolled in the HEOP program in New York State?
2. Do student ratings of the adequacy of supportive services (tutoring, counseling, financial aid, remedial-developmental courses) significantly relate to attrition and persistence once measures of self-concept have been controlled?

Another element in the design included an Adjective Rating Scale (Appendix C) which was used to collect data on student perceptions of both academic and nonacademic services in HEOP (Kelly, Pascarella, Chapman and Terenzini, 1976). Data on individual students were collected through the use of a Demographic Data Form (Appendix C).

B. Sample: According to the HEOP Annual Report of 1976-77, there were 4,948 students attending four-year schools and 846 at two-year schools in New York State. Freshmen accounted for 2,144 of those 6,227 enrollees. The population upon which this study was based consisted of 322 students enrolled in HEOP programs in 19 different institutions. Therefore, this sample accounted for approximately 15% of all HEOP freshmen from the class of 1982. Of the 72 institutions invited to participate, 19 responded resulting in a 26% participation rate among institutions.

The institutions in this study varied a great deal. Eighteen of the 19 institutions were four-year schools with a total enrollment range from approximately 16,000 to 850 students. Freshmen enrollment ranged from 2,819 to 159. Seven of the schools were located in urban areas, 4 in rural areas and 8 in suburban areas. Three of the colleges had religious affiliations. Thirteen of the institutions offered graduate degrees as well as bachelor's; only one institution offered only associate's degrees. The majority of total students enrolled at 17 of the institutions were New York State residents. Two institutions, in urban areas, had international student populations which accounted for over 35% of their total enrollment. All of the institutions were coed and the majority of their students were full-time.

Students in this study came from five racial groups: 56% of the population were Black; 16% were Native American; 14% were nonminority students; 12% were Hispanic; and 2% were Asian. Males accounted for 51% of the sample and females were 49%.

C. Variables: The following variables will constitute this survey research:

1. Self Concept: A score in a standard measure of self concept, the Tennessee Self Concept Scale (independent variable).
2. Sex (independent variable)
3. Previous educational experience (independent variable)
4. Income status (independent variable)
5. Semester of entry (independent variable)
6. SAT-Verbal score or comparable indicator (independent variable)

7. Semesters completed (independent variable)
8. Level of previous educational attainment (independent variable)
9. College credits accumulated (independent variable)
10. Age (independent variable)
11. Marital Status (independent variable)
12. Ethnicity (independent variable)
13. Present level of employment (independent variable)
14. Degree program type (independent variable)
15. High School Rank or equivalent (independent variable)
16. Attitude toward program (interest value) (independent variable)
17. Attitude toward program (practical value) (independent variable)
18. Attitude toward program (emotional appeal) (independent variable)
19. Attitude toward program (difficulty) (independent variable)
20. Attitude toward program (dullness and apathy) (independent variable)
21. Extent of program completion (dependent variable)

D. Instrumentation: The Tennessee Self Concept Scale was employed to measure self concept. This measure has proven to be a highly reliable and valid measure of self concept when employed under standard conditions with populations such as the one in this study. This instrument also correlates quite well with other self-concept measures.

Program-oriented attitude data were collected through use of the Adjective Rating Scale. This instrument has demonstrated itself as a

reliable and valid measure of courses and program-oriented attitude both at Syracuse University and several other colleges around the country. (Kelly, Pascarella, Chapman and Terrinzini, 1976).

Self reported data were collected through questionnaires and archival review, when necessary.

Procedures for Analysis: Analysis of these data proceeded in several stages as follows:

1. Descriptive statistics were computed for all variables and scales and the distributions and central tendencies examined. Departures from normalcy were noted.
2. The complete intercorrelation of all variables was computed.
3. Sample statistics were computed for both the on-hand and additional data and chi square statistics were employed to test the representativeness of the sample data to both known population parameters in the present and past programs as well as comparable statistical descriptors from other state and local programs.
4. In order to preserve degrees of freedom, the independent variables (1-16) were factor analyzed in order to reduce the rank of the data matrix and factor scores for individuals were developed and stored.
5. The Adjective Rating Scale data were factor analyzed and factor scores were computed and stored for each individual.
6. The resultant factor score distributions were entered into a stepwise discriminant analysis against the program completion dependent variable. This analysis (partitioning the criterion variance) was computed in several fashions in

order to test both the full model as well as sub sets of it.

E. Findings: Approximately 71% of the students did not drop out during their first year in college, while 29% did. In addition to a substantial variation in institutional retention rates, there was a great deal of variation in the percentage of students who graduated from each institution. The range of graduates varied from a little over 8% at one institution to nearly 73% at another institution.

The 322 individuals who completed the Tennessee Self Concept Scale had scores which were distributed across a normal range, normally depicted as a bell curve. This demonstrated that despite being academically and financially disadvantaged, these students are normally distributed with respect to their self concept scores.

The measure of self concept from the Tennessee Self-Concept Scale was "total positive responses." A one-way analysis of variance for unequal sub-classes was performed to see if there were significant differences in self concept between students who dropped out in their first year of school versus those who stayed on, and a second similar analysis was performed to see if there were significant differences in self concept between those students who graduated and those who did not.

In both instances there were no significant differences between groups (first year dropouts vs. those who continue, $F = 0.74$, $P = .39$, d.f. = 1,320; graduates vs. nongraduates, $F = 2.86$, $P = .09$, d.f. - 1,320). That is to say, there were no significant differences in self concept between those students who dropped out in their first year and those who remained in college, nor were there any significant differences in self concept between those students who graduated and those who did not.

Analysis of the categories of age, race, and sex showed no significant differences in self-concept. In addition there were no significant differences in self-concept among students attending the different institutions.

Also, because of the variation across institutions, a cross-college analysis was performed. The results at each institution were the same as the total sample--no significant difference in self-concept despite a wide range of success across colleges.

The results of the Adjective Rating Scale documented student's attitudes about the academic supportive services and their specific institutions, as well as their general impressions with the HEOP program. This instrument became irrelevant to the study in that the responses were skewed to the very positive and positive side of the scale. Indeed virtually all of the students had expressed a positive or very positive response to all categories.

While other studies have been performed with this population in other academic settings, and have found some relationship between self-concept and academic success, this is the first study which has found no such relationship. These results suggest that self-concept, as measured by the Tennessee Self Concept Scale is not a significant variable in predicting academic performance in higher education settings among disadvantaged students. The great disparity in the number of students who graduated from each college suggests that institutional characteristics and policies alone, or as they interact with personality variables, are possibly the more reliable predictors of academic success.

In Chapter Four, we will examine a theoretical model which suggests that behavior is a function of both personality and environment. Assuming that the disadvantaged student generally enters an academic environment which is very different from what he/she is ordinarily accustomed to and, also, that the disadvantaged student is often caught in transition between two cultures, environmental influences in attrition and achievement behavior might be important in identifying those conditions under which achievement is maximized. This assumption is the foundation for justifying special programs for special students in education - shift the environment to accommodate the deficiency. To the extent that self-concept might involve how an individual evaluates himself relative to others in his perceptual field, environment-individual "fit" is an important factor in subsequent success "behavior." Since neither previous academic performance, nor self concept is measured by TSCS, enables us to predict graduation, perhaps an analysis of the intervention programs themselves will reveal factors which contribute to success among disadvantaged students.

Most of the studies reviewed thus far, including the study reprinted in Chapter Three, have centered on either environment or individual characteristics, but rarely both. The research model proposed in Chapter Four regards both individual (self-concept) and environmental (program) characteristics in analyzing the conditions under which persistence to graduation might be predicted and managed.

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CHAPTER FOUR

A BEHAVIORAL MODEL FOR PREDICTING THE SUCCESS OF DISADVANTAGED COLLEGE STUDENTS

Several years ago, George Stern of Syracuse University (1964) elaborated on a model based on Kurt Lewin's classic definition of behavior: B = f(P,E), that is, behavior is a function of person and environment. Under this formulation, a specific behavior of an individual is dependent on the interaction of three forces: individual needs, those aspects of personality that are relatively stable from one situation to another, and that give unity and direction to personability; the individual's perceptions of his environment, that is, of the contextual signs that are relevant to the specific behavior and that differentiate it from all other possible behaviors; and the individual's assessment of the sanctions for the specific behavior, its appropriateness in the particular circumstances.

One might look at all three of these forces as belonging in the P of the B = f(P,E) formulation since each individual may perceive the environment and behavioral sanctions in peculiarly individual ways. But the perceived environment is both personal and consensual, including a public world shared by people who confront the same external circumstances. According to Stern, then, E can be defined independently of P in terms of the perceptions and sanctions shared consensually by interacting Ps (Stern, 1964).

Stern further developed this behavioral model by adding to Lewin's some of the thinking of Henry A. Murray: the concept of environmental press (Stern, 1969). Just as an individual's needs are inferred from the

characteristic ways in which he behaves in a variety of situations, so too can the environmental press be determined from observing the continuity and consistency that is evident in a particular environment. According to Stern, the concept of press

> includes conditions that represent impediments to a need as well as those that are likely to facilitate its expression. These conditions, which establish what is commonly referred to as the climate or atmosphere of an institution, are to be found in the structure created or tolerated by others (Stern, 1969).

According to the needs-press model, it is assumed that individuals can be grouped on the basis of similar needs configurations, and that they can be expected to respond in similar ways to similar environmental press configurations. Needs-press congruence is said to obtain, then, when the environment is conducive to the satisfaction of the characteristic needs of the group(s) found therein. Dissonance occurs in an unstable needs-press combination which, according to Stern, must result either in a modification of the environmental press towards more congruency or a withdrawal of the participants.

The simple point to be made here is that behavior is not adequately explained or, properly, predicted unless attention is given not only to the characteristics of the individual or group of individuals, but also to the environmental influences that limit or promote ideal functioning. This is essentially what was found in the present study, in that the personality variable of self-concept was not related to the persistence behavior across students. Rather, the environmental factors of institutional differences seem most predictive of academic success, perhaps as it interacts with some other personality variables.

Several other studies can be found in the literature in which researchers have focused on both personality and environmental variables in analyzing academic outcomes. Applezweig and his associates (1956) attempted to predict academic achievement from the fit between an individual's need for achievement and need for affiliation and the achievement standards in the particular friendship circle. Beach (1960) investigated the relationship between a student's sociability and the type of learning environment (lecture, discussion group, etc.), on the one hand, and academic achievement, on the other. In a classic longitudinal study, Wallace (1966) tracked the aspirations and expectations and academic achievement of college students as they gradually became members of and were influenced by the ongoing campus culture. In her review of research on dropping out, Knoell (1966) refers to attrition as one type of resultant of the "interaction of student, institution, and system variables."

Two other studies are relevant here. Pervin (1967), operating with the theoretical rationale that behavior can best be understood in terms of the interaction between the individual and his environment, investigated student dissatisfaction with college and reported probability of withdrawal in relation to student-college interaction. He administered a self-scaling instrument, the Transactional Analysis of Personality and Environment (TAPE) to 3,728 students in twenty-one colleges. The instrument involved judging six concepts on fifty-two semantic differential scales: college, self, students, faculty, administration, and ideal college. For each college, the ratings of these six concepts were correlated with six satisfaction items: thinking of dropping out for nonacademic reasons, similarity of values to the faculty, agreement with administrative rules and regulations, feeling out of place at the college, academic satisfaction, and nonacademic

satisfaction. Among other findings, Pervin demonstrated that discrepancies between student perceptions of themselves and their college were related to reports of dissatisfaction with college and reports of probability of dropping out. This was more true for nonacademic issues than for academic, however.

Boshier (1971) used the Personality and Educational Environment Scales (PEES) and a self-concept theoretical model to diagnose dropping out in adult education classes. The PEES measures, through semantic differentials, a student's rating of himself, the lecturer, other students, ideal self, and reasons for giving up a course. Boshier compared persistors to dropouts, the latter being defined as having been absent at the midpoint session and four successive sessions of a course after having attended the first or second session. He hypothesized that dropping out, especially for course related reasons, is a function of the magnitude of the discrepancy between the student's self-rating, his lecturer, other students and his ideal self. Boshier found that low discrepancies between self and other students were associated with persistence behavior, while high discrepancies were associated with dropping out.

It will be recalled in previous chapters that several authors have suggested a circular pattern of influence between academic achievement and self-concept. Chahbazi (1971), for one, argued for a formulation in which self-image, which he viewed as acquired mostly in social situations, contributes to the course of future experience and behavior. If the latter is positive, as which academic success, motivation for greater achievement may result, and consequent social approbation may lead to more positive self image, and so on. Drawing on the works of Murray and Stern, Chahbazi suggested that, for some students, there will be a close "fit" between their

needs and the presses of the educational institution. For others, where a lack of fit occurs, it might significantly lower their academic motivation and performance.

We might view disadvantaged students as possibly comprising a definable group in terms of some shared needs that differentiate them from other collegiate subcultures. This would possibly include Regents rules defining the eligible disadvantaged student. (I say "possibly" because just what might distinguish the group still requires some rigorous empirical specification.) One or more of these needs might involve the self-concept, for example, the need to feel self-worth or self-importance, which may even be heightened upon arrival in a potentially threatening environment such as the college environment.* How congruent that environmental press is with the special needs of disadvantaged students may have implications for academic achievement and persistence. If dissonance is high, academic achievement may suffer and if it is high enough, withdrawal might be the result.

The emphasis so far has been on how well the environment can meet the needs of the student. However, there is another side to the "fit" issue. Not only might the college environment be changed to more adequately meet the needs of its student members (e.g., tutors, counselors, remedial/developmental courses and other special supportive services), but also the students themselves might (and do) change to better fit into the environment. Bucklin and Bucklin (1970) reported several studies in the literature to support the proposition that students who come to resemble the environment

---

*Here the notion of relative deprivation may be a useful one. The disadvantaged student may, in high school or home environment, have felt secure in his abilities, worth, etc. relative to those around him. But now in an environment in which he is relatively lower in ability, coping capability or whatever, the sense of mastery might evaporate into one of insecurity and lowered self-image.

while in college are more likely to persist and attain a degree than those who fail to become more like their environment.

Arguing for the power of individual adaptability, and against providing as wide a variety of schools and programs as there are individual differences among students, George Stern (1971) wrote:

> There is some variety in the mix of people in any given setting but, on the whole, the evidence suggests that people capable of responses appropriate to many different kinds of settings tend nevertheless to gravitate toward places with others who share the same personal idiosyncracies, and there behave typically in ways that are consistent with the specific setting in which they have come together.
>
> Although behavior is thus a function of both the individual and the behavior setting, the latter appears to be the controlling determinant. Changes in the environment lead rapidly to changes in the behavior of the participants--whether of adaptation, counteraction, alienation or flight. Changes in the mix of participants, however, make an impact only slowly if at all. Small groups of highly divergent newcomers can be assimilated into large structures with relatively little effort.
>
> . . . .Although a wide variety of opportunities for experience within any school may be desirable, there is no comparable argument for diversification between schools in accordance with peripheral differences in people's needs or capabilities.

Stern made these remarks in the context of an institution-level discussion of college admission patterns and whether colleges desiring to improve their academic climate ought to concentrate on attracting different students or on altering programs. The comments are, nevertheless, relevant here. Of course, Stern did not have in mind here the special case of disadvantaged students within an institution, and his comments might have been different had he focused his remarks on special populations of students. Nevertheless, Dr. Stern might have agreed that we could arrive at a more thorough understanding of predicting college success among disadvantaged students through an empirical application of the Model $B = f(P,E)$; thereby, rendering a foundation for explanation, management and policy.

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CONCLUSIONS AND RECOMMENDATIONS

1. Our literature review reveals that this is the first longitudinal study of its kind to attempt to show the role of self concept in predicting success among disadvantaged students who are enrolled in undergraduate degree programs which lead to a four year degree.
2. The analysis of the central issues shows that despite the complexity of predicting college success, traditional academic predictors do not apply to this population.
3. In the absence of traditional academic predictors of success, TSCS is of no value.

   The question "To what extent does a score from a standard measure of self concept predict persistence among disadvantaged students enrolled in the HEOP program in New York State?" is answered. It has no predictive value and is not related to persistence or attrition.
4. Because the Tennessee Self Concept Scale is well regarded as a valid instrument which correlates with other standard measures of self concept, we would not recommend that a replication of this study take place with a different self concept measure. We think the results would be similar.
5. Research could continue in an effort to explain two key questions:
   a. Given the myriad of supportive services, why do some HEOP students succeed and others do not?
   b. Why do some institutions succeed at a greater rate of graduation than other institutions?

The research model we proposed in Chapter Four will identify institutional policy and help formulate policy and procedures which might enhance success. This might be particularly useful since HEOP programs operate within different institutions with "home rule" policies. Such research might be useful in assisting institutional policy formation to enhance success.

6. Finally, in an effort to strengthen the data base of information on which program activities are successful and which program aspects are futile, a network of information exchange and research dissemination might be particularly facilitative.

APPENDIX A

HIGHER EDUCATION OPPORTUNITY PROGRAM LEGISLATION

BEST COPY

STATE OF NEW YORK

Cal. No. 1995 5630-C

1969-1970 Regular Sessions

IN SENATE

April 23, 1969

Introduced by COMMITTEE ON RULES—(at request of Mr. Brydges)--read twice and ordered printed, and when printed to be committed to the Committee on Finance—ordered to a third reading, amended and ordered reprinted retaining its place in the order of third reading, amended and ordered reprinted retaining its place in the order of third reading

AN ACT

To amend the education law to establish a program of higher education opportunity

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The education law is hereby amended by adding thereto a new article, to be article one hundred-thirty, to read as follows:

ARTICLE 130

OPPORTUNITY FOR HIGHER EDUCATION

Section 6451. Opportunity for higher education.

§ 6451. Opportunity for higher education. 1. To advance the cause of educational opportunity in higher education, the commissioner may contract with public and non-public institutions of

EXPLANATION — Matter in *italics* is new; matter in brackets [ ] is old law to be omitted.

higher education for the support of special programs for the screening, testing, counseling and tutoring of graduates of an approved high school or individuals who have attained a New York state high school equivalency diploma who have potential for the successful completion of a post secondary program and are economically and educationally disadvantaged, as defined by the regents.

2. To qualify for state assistance through such contracts, an institution of higher education must be a college or university incorporated by the regents or by the legislature and must maintain one or more earned degree programs culminating in an associate or higher degree.

3. Moneys made available to institutions through contracts shall be spent only for the following purposes:

a. Special testing, counseling and guidance services in the course of screening potential enrollees;

b. Remedial courses and summer classes for such students;

c. Special tutoring, counseling and guidance services for such enrolled students;

d. Any necessary supplemental financial assistance, to include stipends and books.

No funds shall be made available to support the regular academic programs of any institution participating in this program nor shall funds be provided for programs which are incompatible with the regents statewide plan for the expansion and development of higher education.

4. The commissioner shall promulgate regulations requiring the submission to him by any institution intending to contract with the

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the state for assistance pursuant to this section of reports in such form and containing such information as he shall require, concerning, but not limited to, such matters as a description of the proposed program, estimated costs, objectives, the extent of the institution's support of such program and similar programs and the progress of students in such programs, and the commissioner shall take such factors into account in determining whether to enter into a contract with such institution and the terms and conditions thereof.

5. Contracts made pursuant to this section shall be subject to the approval of the director of the budget.

6. The commissioner shall prepare an annual report of the activities of the institutions which received state funds pursuant to this section in the preceding fiscal year, concerning, but not limited to, the effectiveness of each of the programs contracted for, the costs of the programs and the future plans thereof and shall transmit such report to the Governor and the legislature on or before the September first next following the close of such fiscal year.

§ 2. This act shall take effect April first, nineteen hundred sixty-nine for programs beginning after June first, nineteen hundred sixty-nine.

APPENDIX B

TENNESSEE SELF CONCEPT SCALE

TENNESSEE
SELF CONCEPT SCALE

COMPUTER SCORED EDITION

by

William H. Fitts, PhD

Published by

Counselor Recordings and Tests

Box 6184 - Acklen Station Nashville, Tennessee 3721/

DIRECTIONS: Fill in your name and other information on the separate answer sheet.

The statements in this inventory are to help you describe yourself as you see yourself. Please answer them as if you were describing yourself to yourself. Read each item carefully; then select one of the five responses below and fill in the answer space on the separate answer sheet.

Don't skip any items. Answer each one. Use a soft lead pencil. Pens won't work. If you change an answer, you must erase the old answer completely and enter the new one.

RESPONSES	Completely False	Mostly False	Partly False and Partly True	Mostly True	Completely True
	C	M		M	C
	F	F	PF-PT	T	T
	1	2	3	4	5

TENNESSEE SELF CONCEPT SCALE

1. I have a healthy body 1
2. I am an attractive person 2
3. I consider myself a sloppy person 3
4. I am a decent sort of person 4
5. I am an honest person 5
6. I am a bad person 6
7. I am a cheerful person 7
8. I am a calm and easy going person 8
9. I am a nobody 9
10. I have a family that would always help me in any kind of trouble 10
11. I am a member of a happy family 11
12. My friends have no confidence in me 12
13. I am a friendly person 13
14. I am popular with men 14
15. I am not interested in what other people do 15
16. I do not always tell the truth 16
17. I get angry sometimes 17
18. I like to look nice and neat all the time 18
19. I am full of aches and pains 19
20. I am a sick person 20
21. I am a religious person 21
22. I am a moral failure 22
23. I am a morally weak person 23
24. I have a lot of self-control 24
25. I am a hateful person 25
26. I am losing my mind 26
27. I am an important person to my friends and family 27
28. I am not loved by my family 28
29. I feel that my family doesn't trust me 29
30. I am popular with women 30
31. I am mad at the whole world 31
32. I am hard to be friendly with 32
33. Once in a while I think of things too bad to talk about 33
34. Sometimes when I am not feeling well, I am cross 34
35. I am neither too fat nor too thin 35
36. I like my looks just the way they are 36
37. I would like to change some parts of my body 37
38. I am satisfied with my moral behavior 38
39. I am satisfied with my relationship to God 39
40. I ought to go to church more 40

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41. I am satisfied to be just what I am 41
42. I am just as nice as I should be 42
43. I despise myself 43
44. I am satisfied with my family relationships 44
45. I understand my family as well as I should 45
46. I should trust my family more 46
47. I am as sociable as I want to be 47
48. I try to please others, but I don't overdo it 48
49. I am no good at all from a social standpoint 49
50. I do not like everyone I know 50
51. Once in a while, I laugh at a dirty joke 51
52. I am neither too tall nor too short 52
53. I don't feel as well as I should 53
54. I should have more sex appeal 54
55. I am as religious as I want to be 55
56. I wish I could be more trustworthy 56
57. I shouldn't tell so many lies 57
58. I am as smart as I want to be 58
59. I am not the person I would like to be 59
60. I wish I didn't give up as easily as I do 60
61. I treat my parents as well as I should (Use past tense if parents are not living) 61
62. I am too sensitive to things my family say 62
63. I should love my family more 63
64. I am satisfied with the way I treat other people 64
65. I should be more polite to others 65
66. I ought to get along better with other people 66
67. I gossip a little at times 67
68. At times I feel like swearing 68
69. I take good care of myself physically 69
70. I try to be careful about my appearance 70
71. I often act like I am "all thumbs" 71
72. I am true to my religion in my everyday life 72
73. I try to change when I know I'm doing things that are wrong 73
74. I sometimes do very bad things 74
75. I can always take care of myself in any situation 75
76. I take the blame for things without getting mad 76
77. I do things without thinking about them first 77
78. I try to play fair with my friends and family 78
79. I take a real interest in my family 79
80. I give in to my parents.(Use past tense if parents are not living) 80
81. I try to understand the other fellow's point of view 81
82. I get along well with other people 82
83. I do not forgive others easily 83
84. I would rather win than lose in a game 84
85. I feel good most of the time 85
86. I do poorly in sports and games 86
87. I am a poor sleeper 87
88. I do what is right most of the time 88
89. I sometimes use unfair means to get ahead 89
90. I have trouble doing the things that are right 90
91. I solve my problems quite easily 91
92. I change my mind a lot 92
93. I try to run away from my problems 93
94. I do my share of work at home 94
95. I quarrel with my family 95
96. I do not act like my family thinks I should 96
97. I see good points in all the people I meet 97
98. I do not feel at ease with other people 98
99. I find it hard to talk with strangers 99
100. Once in a while I put off until tomorrow what I ought to do today 100

APPENDIX C

ADJECTIVE RATING SCALE

Name: _____ School Code: _ _ _ _

STUDENT OPINION QUESTIONNAIRE

We would appreciate your cooperation in providing us with information about your feelings toward the Higher Education Opportunity Program (HEOP). Please rate each aspect of HEOP listed below by circling one of the four alternatives that most closely matches your feeling or attitude. It is important that you rate all of the parts of the program listed below. If you have not had any direct experience with a particular aspect or part of the program, rate it anyway. Your rating should then be based on what you expect it would be like if you did experience it directly. Please rate all twenty-two items listed below. Choose:

VP if you are very positive or feel very good about the item

P if you are positive or feel just good about the item

N if you are negative or feel bad about the item

VN if you are very negative or feel very bad about the item

		Very Positive	Positive	Negative	Very Negative
1.	The Admissions Procedures	VP	P	N	VN
2.	The Registration Process	VP	P	N	VN
3.	The process used to determine eligibility for the program	VP	P	N	VN
4.	Getting financial aid from the program	VP	P	N	VN
5.	The work-study program	VP	P	N	VN
6.	Student Loans	VP	P	N	VN
7.	The total financial aid program	VP	P	N	VN
8.	Your regular academic courses	VP	P	N	VN
9.	Your remedial or developmental academic courses	VP	P	N	VN
10.	The Quality of instruction	VP	P	N	VN
11.	Individual or one-to-one tutoring	VP	P	N	VN
12.	Group Tutoring	VP	P	N	VN
13.	Peer Tutoring	VP	P	N	VN
14.	Course availability or selections	VP	P	N	VN
15.	Academic Advisement	VP	P	N	VN
16.	Career Planning	VP	P	N	VN

17.	Personal Counseling	VP	P	N	VN
18.	General Administration of the program	VP	P	N	VN
19.	Faculty in the Program	VP	P	N	VN
20.	Other Students in the Program	VP	P	N	VN
21.	The program's ability to help you reach your goal	VP	P	N	VN
22.	Your HEOP experience overall	VP	P	N	VN

Please check to make sure that you have rated <u>all</u> twenty-two items.

THANK YOU FOR YOUR COOPERATION.

APPENDIX D

DEMOGRAPHIC DATA FORM

School Code ☐☐☐☐

DEMOGRAPHIC DATA FORM

1. Name: _____
   First Middle Last

2. Birthdate: _____ _____ _____
   Month Date Year

3. Ethnic Code:
   - ☐ Native American
   - ☐ Black American
   - ☐ Oriental American
   - ☐ Spanish American
   - ☐ Non-minority

4. Sex: ☐ Male ☐ Female

5. How many persons live in your home? _____

6. Did you fill out the PCS form? ☐ Yes ☐ No

7. Did you fill out the FAF form? ☐ Yes ☐ No

8. Name of High School: _____

9. High School Grade Point Average: _____

10. What Type of High School Diploma did you receive?
    - ☐ Regular Diploma
    - ☐ Academic/Regents Diploma
    - ☐ Vocational Diploma
    - ☐ High School Equivalency
    - ☐ None

11. SAT Scores: Verbal_____ Quantitative _____

12. Are you a transfer student? ☐ Yes ☐ No

13. Will you be enrolled on a full-time or part-time basis?

☐ Full-time ☐ Part-time

14. What type of degree will you be working for?

☐ AA (Associate of Arts)

☐ AS (Associate of Science)

☐ BA (Bachelor of Arts)

☐ BS (Bachelor of Science)

☐ Other, specify_____

☐ None

15. What is your planned Major? _____